

Date: Sat, 9 Jan 93 04:30:14 PST
From: Advanced Amateur Radio Networking Group <tcp-group@ucsd.edu>
Errors-To: TCP-Group-Errors@UCSD.Edu
Reply-To: TCP-Group@UCSD.Edu
Precedence: Bulk
Subject: TCP-Group Digest V93 #9
To: tcp-group-digest

TCP-Group Digest Sat, 9 Jan 93 Volume 93 : Issue 9

Today's Topics:

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xspawn
XSPAWN - once more

Send Replies or notes for publication to: <TCP-Group@UCSD.Edu>.
Subscription requests to <TCP-Group-REQUEST@UCSD.Edu>.
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the TCP-Group Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 8 Jan 93 10:40:42 MST
From: Larsen Karl VAL-C 678-3145 <klarsen@wsmr-emh73.army.mil>
Subject: 8086 compiles
To: tcp-group@ucsd.edu

Before there is any problem, I have an 8086 lap-top that I run

nos in so I at least will need a copy of nos that is compiled for that
cpu. So I will do this: As I get the source codes for the latest
versions of nos I will compile an 8086 version and place it on UCSD and
tomcat.

If I have a problem I will yell here for support.

73, karl k5di@k5di.nm.usa.na

Date: Fri, 8 Jan 93 19:21:36 PST
From: "Jerzy Tarasiuk" <JT@zfja-gate.fuw.edu.pl>
Subject: CPU ID test code
To: MIKEBW@ids.net (Mike Bilow, <MIKEBW@ids.net>)

> Date: Thu, 7 Jan 1993 16:55:07 -0500 (EST)
> Message-Id: <930107165507.3ec7@ids.net>
>
> The main objective for my CPU test program right now is so obvious that
> you didn't think of it! If there is going to be a 386-specific version
> on NOS, it has to at least produce an intelligible error message if
> someone tries to run it on an XT or 80286. This is a user support issue.
> If the program isn't smart enough to quit gracefully on a machine that
> can't run it, it will most likely just lock up.

Right (however I know about commercial product (operating system),
dedicated for 80386 which didn't have CPU type check in it).

But probably it cannot be coded into C program: to test it I compiled
CPU test program (just your program translated to C I sent to tcp-group)
with -2 option (I have BC 3.0 only, it doesn't have -3 option) and tried
to run (using machine code debugger, of course) - and I found first
opcode of main() is ENTER, which is not valid 8088 opcode and would
cause crash if executed. Can write main() in assembly (code to verify
CPU followed by JMP C_main or so), but we cannot be absolutely sure
library routines executed before main() use valid 8088 opcodes only
(trying to run my program I had a little hope the startup code of .EXE
made with -2 option checks on what CPU it runs).

Other ways: modify .EXE to put extra startup code in it (similar way
many viruses do it: append new code on end, put old transfer address
in the new code, change module size and transfer address in header;
it requires the .EXE to contain no overlays);
or link extra startup code (this needs put name of startup routine
in the code added, need know it and may be compiler-dependent; this
also causes the CPU check code to remain in memory all time).

> It would be nice if my CPU test program eventually can be used to run
> one version of NOS which will automatically select 386 or generic
> instructions, but the performance penalty would probably be too high

Performance loss is during loading the program only: need select what is to be loaded. But this means either 2 copies of program to be on disk (one for 8088, second for better CPU) or the loading program must be smart enough to select what parts are to be loaded (this would need something like diff, but for executable files, to prepare data for it; a lot of work and don't know if can get any positive effect; note to build executable need compile all modules for both modes, for what reason, I suppose no one is changing CPU in his computer every day). First concept is more sensible: a program can be named NOS.COM, it should check what CPU it runs on, say it is 286, then it searches the directory it was loaded from, say it finds NOS.EX3 (for 80386) and NOS.EX1 (for 80188 or better), it should say no NOS.EX2 was found (for user to know what is best for his computer) and load NOS.EX1. This (or program setting exit code dependent on CPU + batch using the code to select proper command) can be good for LAN where most programs are on network disks and there are different machines using them. And it doesn't require to modify anything in NOS sources.

73's, JT

Date: Fri, 8 Jan 1993 16:04:08 -0500 (EST)
From: MIKEBW@ids.net (Mike Bilow, <MIKEBW@ids.net>)
Subject: CPU ID test code
To: tcp-group@ucsd.edu

From: IDS::MIKEBW "Mike Bilow, <mikebw@ids.net>" 8-JAN-1993 15:53:32.36
To: SMTP%"JT@zfja-gate.fuw.edu.pl"
CC: MIKEBW
Subj: Re: CPU ID test code

I didn't realize that BC++ would put an ENTER instruction at the beginning of main() if the "-3" compiler switch was used. That's a problem. I will look into the c0.asm module that comes with BC++; it may be possible to use a reserved name for my CPU test routine and have it executed before main(). Modifying c0.asm is not something I would want to do, although it would obviously fix this problem.

Another thought I had was to wrap NET.EXE inside a small loader which tested the CPU and then transferred control to the program wrapped inside. PKLITE, for example, works this way, and it is a lot more complicated.

It seems to me that it would have been a good idea for Borland to have included the CPU trap as a part of the "-3" switch. It would be a nice feature as well with the "-2" switch.

-- Mike Bilow, <mikebw@ids.net> (Internet)

Date: Fri, 8 Jan 93 10:13:09 EST
From: kz1f@RELAY.WESTBORO.LEGENT.COM
Subject: DPMI mode
To: tcp-group@ucsd.edu

Bruce Perens writes -
 well, alot of good stuff abt linux (Unix lite).
Oh, dare I start....
Everything he said abt the pluses of Linux are also true for OS/2.
The really good new is that the negatives he mentioned are not true
for OS/2, ie:
 No steep learning curve since its cmd structure is almost identical to DOS
 OS/2 does run existing DOS applications
 OS/2 does run 99.999% of existing Windows applications.

NOS for OS/2 does exist, the GNU compiler is free etc.
Well enough of my soap boxing, I simply couldnt resist. Walt

Date: Fri, 8 Jan 1993 10:50:56 -0800 (PST)
From: Bruce Perens <bruce@pixar.com>
Subject: DPMI mode
To: kz1f@legent.com

I guess the point I should be making is that those of us with 386 and higher class processors should be running more modern operating systems than DOS. Pre-emptive multiprocessing and protected virtual address spaces have been around for three decades. Programming multiple-client systems without them is possible, but perhaps more hassle than it is worth.

I agree, OS/2 is a fine platform, and runs DOS and Windows applications, even those that do direct screen write. If you want to run DOS or Windows applications on the same system with NOS, OS/2 is your best platform today. Being a kernel hacker, I prefer a system where I can have the kernel source, but a supported commercial system is a better idea for most non-hackers.

Bruce Perens

On Fri, 8 Jan 1993 kz1f@RELAY.WESTBORO.LEGENT.COM wrote:

> Bruce Perens writes -
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> Everything he said abt the pluses of Linux are also true for OS/2.
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>
> NOS for OS/2 does exist, the GNU compiler is free etc.
> Well enough of my soap boxing, I simply couldnt resist. Walt
>
>
>

Date: Fri, 8 Jan 93 19:24:40 PST
From: Bill Healy <healy@moriah.ee.unr.edu>
Subject: MID dups problem - Revisited
To: tcp-group@ucsd.edu (tcp-group)

> Well, with a simple addition to the forward.c file of WG7J1.07b, the dup
> MIDs problem is history! This is the snip of code I added to TNOS to
> handle the problem. I've sent it to Johan, and he is adding it to JNOS.
> The code changes the bid from \$abcde_host.domain to \$abcde%destinationuser.

What is abcde, the message number?

Bill N8KHN

Date: Fri, 08 Jan 1993 09:58:09 CST
From: ben@val.val.com (Ben Thornton)
Subject: NNTP usage
To: tcpgroup@ucsd.edu (TCP/IP Packet Radio Working Group)

Does anyone have any experiences using the NNTPS features of JNOS1.07?

One of the local IP stations and I decided to set up one of his machines as an NNTP server and we began posting test articles from my machine via radio link and from his machine via a SLIP connection. What happened was that when I posted some articles on my machine and then kicked my NNTP client (I did it gently :-), it forwarded the articles to the server just fine,

but when the other fellow kicked his client on his second machine, no new articles showed up on his local disk. Am I missing something (other than the documentation)?

Ben

--

Ben Thornton packet: wd5hls@wd5hls.ampr.org
Video Associates Labs Internet: ben@val.com
Austin, TX uucp: ...!cs.utexas.edu!val!ben
"Push to Test --->@ ...Release to Detonate"

Date: Fri, 08 Jan 1993 14:02:01 est
From: "Clayton Decosterd" <clay@drone.hazeltine.com>
Subject: NOS under Minix
To: tcp-group@ucsd.edu

Hi All,

I have a copy of the Minix operating system for the PC. I would like to know if anyone is running NOS with this operating system. Any info would be appreciated.

Thanks

73

Clay KB2FUR

--

Clayton DeCosterd INTERNET : clay @ drone.hazeltine.com
 COMPUSERVE: 71754,447

Date: Fri, 8 Jan 1993 16:25:33 -0500 (EST)
From: MIKEBW@ids.net (Mike Bilow, <MIKEBW@ids.net>)
Subject: PMNOS 1D NOT AT CHOWDANET
To: kz1f@legent.com, tcp-group@ucsd.edu

Walt's uploads of the new PMNOS 1D were trashed by the virus scanner at ChowdaNet. By using the GNU ZIP tools, Walt would have created a slightly incompatible archive file. In particular, GNU ZIP uses the new "deflate" compression algorithm that is in PKZIP only as of the beta versions. The official version of DOS PKZIP that is used by the ChowdaNet virus scanner apparently didn't know what to do, reported an error code, and the files were treated like a corrupt ZIP file and trashed.

I can straighten this out, since I can bypass the virus scanner using sysop privileges. (Walt could have bypassed the virus scanner himself just by using an extension other than "ZIP," but he didn't know. Of course, any file named like that is handled manually by the susop.)

Until I can fix this when I have time to push 1.5 MB back and forth later tonight, DO NOT CALL CHOWDANET for PMNOS. If all goes well, I should have things right by Saturday morning.

-- Mike Bilow, <mikebw@ids.net> (Internet)

Date: Fri, 8 Jan 93 10:53:51 EST
From: kz1f@RELAY.WESTBORO.LEGENT.COM
Subject: PMNOS V1.0D
To: tcp-group@ucsd.edu

It is with great pride/relief that I am announcing the general availability of PM NOS V1.0D. As I have mentioned earlier this most probably will be it for PMNOS as you have all come to know it. Technology hasn't stopped and neither have I. My next offering, to be named later, will be based on an entirely different technology, support SCC and i-net. Enough on futures. Through next fri, PMNOS1DX (executable, intronos.inf and assorted readmes) as well as PMNOS1DS (source) will be available via anonymous ftp from giskard.uthscsa.edu. After next fri these files will be available at ucsd.edu. A couple of notes: You will need a recent (1.2 or 2.0) pkunzip or preferably the OS/2 32 bit GNU unzip to unzip these files. If you don't have this gem, it's available at hobbess and also probably watson.

PMNOS now remembers, should you want it to forget, delete nos.ini from your selected spool dir.

The PMNOS1D? pair is also available from ChowdaNet (401)331-0304.

Have fun, enjoy and BE SURE to read the readme.now file.

Walt

Date: Fri, 08 Jan 93 16:22:16 CET
From: BARRY TITMARSH <BTITMARS%ESOC.BITNET@vm.gmd.de>
Subject: Thanks. info wampes
To: TCP-GROUP <TCP-GROUP@ucsd.edu>,

Thanks for the tip on wampes will look at the linux code later.

Thanks. Barry

Date: 08 Jan 1993 12:19:32 -0500 (EST)
From: "Brian A. Lantz" <BRIANLANTZ@delphi.com>
Subject: TNOS info
To: tcp-group@ucsd.edu

Well, TNOS is not out yet, but it's not far away! A couple of quick code fixes and I'll be on to "minimal" documentation.

Several of you expressed interest in helping distribute the source/exe to several different locations. Thanks! If you can assist in getting it to the "masses", please send me a RF packet message (not Internet, please) in the following manner....

To: REQSVR@K04KS.#TPA.FL.USA.NA
Subj: Group Subscribe TNDIST

This will help me, by allowing my TNOS board to automate the mailing-list.

Also, I will be posting a "What else is in TNOS" message soon!

73 from Brian A. Lantz K04KS@K04KS.#TPAFL.FL.USA.NA 3100813105
 Internet: brianlantz@delphi.com
 Amprnet: ko4ks@ko4ks.ampr.org [44.98.0.167]

Date: Fri, 8 Jan 1993 18:42:27 -0100 (GMT-1:00)
From: andy@mimuw.edu.pl (Andrzej K. Brandt)
Subject: Unwanted mail
To: tcp-group@ucsd.edu

Hello there,

There is one thing in NOS that I really don't like and I wonder if there is any way to change that. It's the fact, that NOS accepts all mail addressed to host. I don't see any way to make him refuse mail to some "users" as grown up Internet hosts do.

The problem is, that I use address andy@sp5wca.ampr.org on 44-net, but others insist on mailing to sp5wca@sp5wca. This is not a big problem, it's just annoying. I dream about such a guy getting a nice <User unknown> returned letter. But it becomes more serious when we connect NOS to real Internet and someone makes an error in addressing, or for example replays to a public PC, from which many people send their mail via SMTP but only few receive it.

So - is there any possibility of changing that?

Subject: V40 machine
To: n8fow@wsu.n8fow.ampr.org

> Date: Fri, 08 Jan 93 05:14:43 UTC
> Message-Id: <5017@wsu.n8fow.ampr.org>
> From: n8fow@wsu.n8fow.ampr.org
>

> Actually I have a laptop here that has a V40 for it's CPU. There are
> a couple plug-in boards for the PC that have V40 processors. The MIO board
> is one and I believe it can run NOS for a standalone site. I didn't enter
> the cpu-id code, maybe someone can just post it somewhere to save time
> (too busy with Borland C++ to remember debug :-) and I can run it on
> the V40 machine and see what it says. I ran several programs about the

I have rewritten Mike's program in C (tried to compile it using BC 3.0,
TC++ 1.01, MSC 6.0, TC 2.0, TC 1.5 - was working OK for every compiler).
Here it is - run it and post results to Mike Bilow, <mikebw@ids.net>

```
char cpuid[]={
    0x52,0x33,0xD2,0x9C,0x58,0x80,0xE4,0x0F,0x50,0x9D,0x9C,
    0x58,0x80,0xE4,0xF0,0x80,0xFC,0xF0,0x74,0x12,0xFE,0xC2,
    0x9C,0x58,0x80,0xCC,0xF0,0x50,0x9D,0x9C,0x58,0x80,0xE4,
    0xF0,0x74,0x02,0xFE,0xC2,0xFE,0xC2,0x8B,0xC2,0x5A,0xCB},
*cpuname[]={ "8088/8086/V20/V30\n", "80286\n", "80386/80486\n" };
```

```
main()
{
    int cpu,(far *CpuId)()=(int (far *)())cpuid;
    cpu=(*CpuId)();
    printf("\nProcessor detected: %s",cpuname[cpu-1]);
}
```

73's, JT

Date: Fri, 08 Jan 93 20:53:05 CET
From: BARRY TITMARSH <BTITMARS%ESOC.BITNET@vm.gmd.de>
Subject: WHAT IS SMACK ?
To: TCP-GROUP <TCP-GROUP@ucsd.edu> ,

The subject line says it all.
it seems to be in new netrom type or tnc type boxes
some talk about it has been seen in Germany for past 6 months
but i have never gotten a sensible reply for any one.
Any Idears? Please
Barry

Date: Fri, 08 Jan 93 14:54:14 CET
From: BARRY TITMARSH <BTITMARS%ESOC.BITNET@vm.gmd.de>
Subject: WNOS-Group server Back.
To: Packet Radio Digest <packet-radio@ucsd.edu>,

Hello.

The Listserv@esoc.bitnet now again has its group server running again
If you wish to be informed about WNOS specific bugs and software fixes
then send a mail to the listserv@esoc.bitnet and use the SIGNON WNOS-GRP
or simply help will get son info on how to do it.
Thanks Barry List-Owner.
New versions of WNOS - 5 out in the comming months.

Date: Fri, 8 Jan 93 23:12:26 EST
From: crompton@NADC.NADC.NAVY.MIL (D. Crompton)
Subject: xspawn
To: tcp-group@ucsd.edu

Date: 08 Jan 1993 12:06:31 -0500 (EST)
From: "Brian A. Lantz" <BRIANLANTZ@delphi.com>
Subject: XSPAWN - once more
To: tcp-group@ucsd.edu

After some more testing, I suggest changing the two lines in yesterday's
XSPAWN fix in pc.c from

addvect (....., IRET)

to

addvect (....., CURRENT)

Seems to work better!

As for packet driver fixes.... Since I am not using any packet driver code
I will pass the torch to others ; -)

73 from Brian A. Lantz K04KS@K04KS.#TPAFL.FL.USA.NA 3100813105
Internet: brianlantz@delphi.com

Ampinet: ko4ks@ko4ks.ampr.org

[44.98.0.167]

End of TCP-Group Digest V93 #9
